

# **FIRE SAFETY**

October is recognized annually as National Fire Prevention Month, to help promote awareness on the dangers which could increase the risk of fires at home, or at work, and what can be done to lessen the risk of serious injury or death. Even though many organizations including your local fire and emergency services have been working hard on fire safety education and training for over 100 years, over 3,000 people die annually in home and workplace fires in the United States. Fire events most frequently begin to climb in October, with the beginning of the heating season; peaking in December and January.

Two thirds of fatal injuries from fires are not the direct result of the heat or the fire itself; it is from the effects of smoke, superheated air, and toxic vapors released as a result of incomplete combustion. Trial burns of hotels and offices have shown that in some tests, the breathing atmosphere can become dangerous within two minutes.

## **The Basics of a Fire**

For a fire to occur, either at work or in the home, four things must be present; a fuel source, oxygen, a source of ignition or heat, and a chain reaction to bring the fuel, oxygen, and heat or ignition source together. Reduction in the amount of fuel available, and removal of heat or ignition sources are easily done both in the office, and the work setting, thus breaking the chain in two or more places.

Many common items in the home and office thought to be harmless, or that are often ignored are fuel sources. For example, draperies and linens, oil based paints, paint thinners and solvents, fuel for the Coleman stove, the gasoline in the garage for the lawn mower, the stacks of files on top of or under you work stations. Heat or ignition sources can be frayed or worn extension cords, unguarded fireplaces in use, space heaters, smoking materials not extinguished, Christmas trees (more on this one later), and food items left cooking too long or at too hot a temperature. The heat source does not have to be physical in nature, such as flame and/or heat, or electricity; it may be the result of improper storage of chemicals together to cause a chemical reaction.

## **What Can I Do At Home?**

Though not comprehensive as conditions vary from home to home, these items are simple and effective, and can be done by almost anyone:

- Install smoke detectors, at least one per floor, and test them no less than annually. When the battery low “chirp” sounds, replace the battery promptly.

- Remove flammables such as oil-based paint, Coleman fuel, gasoline and kerosene from the home. If kept in storage, maintain very small amounts (a gallon or less) and do not store them next to items such as fertilizers, compost piles, ready to light charcoal, battery charging stations, etc.
- When using candles, space heaters, or fireplaces,(whether wood burning, gas, electric, or propane) keep them at least three feet away from items such as furniture or draperies that could ignite. Always have the screen in place when using your fireplace. Never leave these items unattended when in use.
- Keep matches and lighters out of the reach of children at all times. Make certain that smoking materials are always extinguished if you smoke.
- Inspect extension cords for frayed or broken insulation. Replace them if damaged.
- Have your home inspected by a qualified inspector if you have frequent power service interruption from circuit breakers tripping, or fuses blowing.
- Place a fire extinguisher and visually inspect it monthly in the room where a high number of home fires start—the kitchen.
- Have an evacuation plan in place, and rehearse it. Teach your children what to do, how to evacuate, how to call the fire department or police. Designate a nearby site such as a neighbor's home to gather should a fire occur.

### **What Can I Do At Work?**

Several regulatory bodies, to include the National Fire Protection Association, Occupational Safety and Health Administration, and local fire marshal's office direct that local occupant emergency plans be prepared, and in force at the workplace. Key components include smoke detection and alarm signals, periodic drills of at least twice a year, and evacuation of the workplace.

Many buildings will also have in place local programs where key employees are tasked with ensuring that should a fire alarm sound all other employees are safely evacuated, and only responders are in the building. Managers and supervisors must also be aware that they will be approached, and expected to account for employees' presence if an actual fire event occurs in order to permit a search for them, and rescue if necessary. Offices should have an appointed place to report to, should a roster of employees be necessary.

To help ensure your safety at work from fire dangers, you must:

- If an alarm sounds, and you are directed to evacuate-you evacuate. As an aside it should be pointed out that in addition to placing yourself in danger, and in the possible position to receive a civil penalty from local fire authorities, Federal employees have received suspensions for failure to evacuate when an alarm sounds, or directing others not to evacuate.
- Do not attempt to return to your workstation to gather belongings, such as your coat if away from your immediate work area. You will be impeding the egress of

your coworkers, and possibly risking your life and theirs. Proceed to the nearest exit as appropriate.

- If you witness a fire break out, report it immediately following your local emergency procedures. In many offices this may require you to alert co-workers by voice if other means are not available.
- If you are in a position such as the facility manager, a designated responder, or floor monitor, you must become familiar with your facility and its local occupant emergency plan in order to perform the assigned duties.
- Many locations may have designated areas for employees to gather in the event of an evacuation, such as a nearby parking lot, athletic field, or another building. Local protocols may differ, but it is ill advised for employees to attempt to either enter or leave until directed by the facility manager or other appropriate official.

As the winter months approach, the number of fires historically increases. This can be explained in part due to seasonal activities; such as raking and burning leaves, Halloween jack o'lanterns, and Christmas decorations. And an often overlooked item; fireplace chimneys can be a major concern. To help reduce the risk of home fires during this season, you can also do the following:

- Do not use candles for light sources at Halloween for jack o'lanterns. Small flashlights are much safer. If you use candles at Christmas, never leave them unattended while burning and place them away from flammable items.
- Many costumes at Halloween are actually made of material that is flammable or will rapidly melt when exposed to flame or heat. Avoid them, look for costumes that are fire retardant; or allow children to make costumes out of used or old clothing made of cotton or natural fibers (supervising them, of course).
- Your fireplace or wood stove chimney may need cleaning if you use it often, or use woods from certain softwood trees such as evergreens, or green wood. Buildups of combustible resins can occur, which could result in a fire. Chimneys should be professionally cleaned at least every two years (many experts say annually).
- During the Christmas season, nothing tops using natural trees or greens for decoration. If allowed to dry out, these items can quickly ignite if near an ignition or heat source. Keep natural trees well watered, and dispose of garland that is beginning to shed needles or turn brown. Do not leave a Christmas tree unattended with the lighting on, and use only Underwriter's Laboratories listed lighting.
- Don't burn leaves after raking; place them on the curb for collection if available, or compost them for mulch to be used in spring.